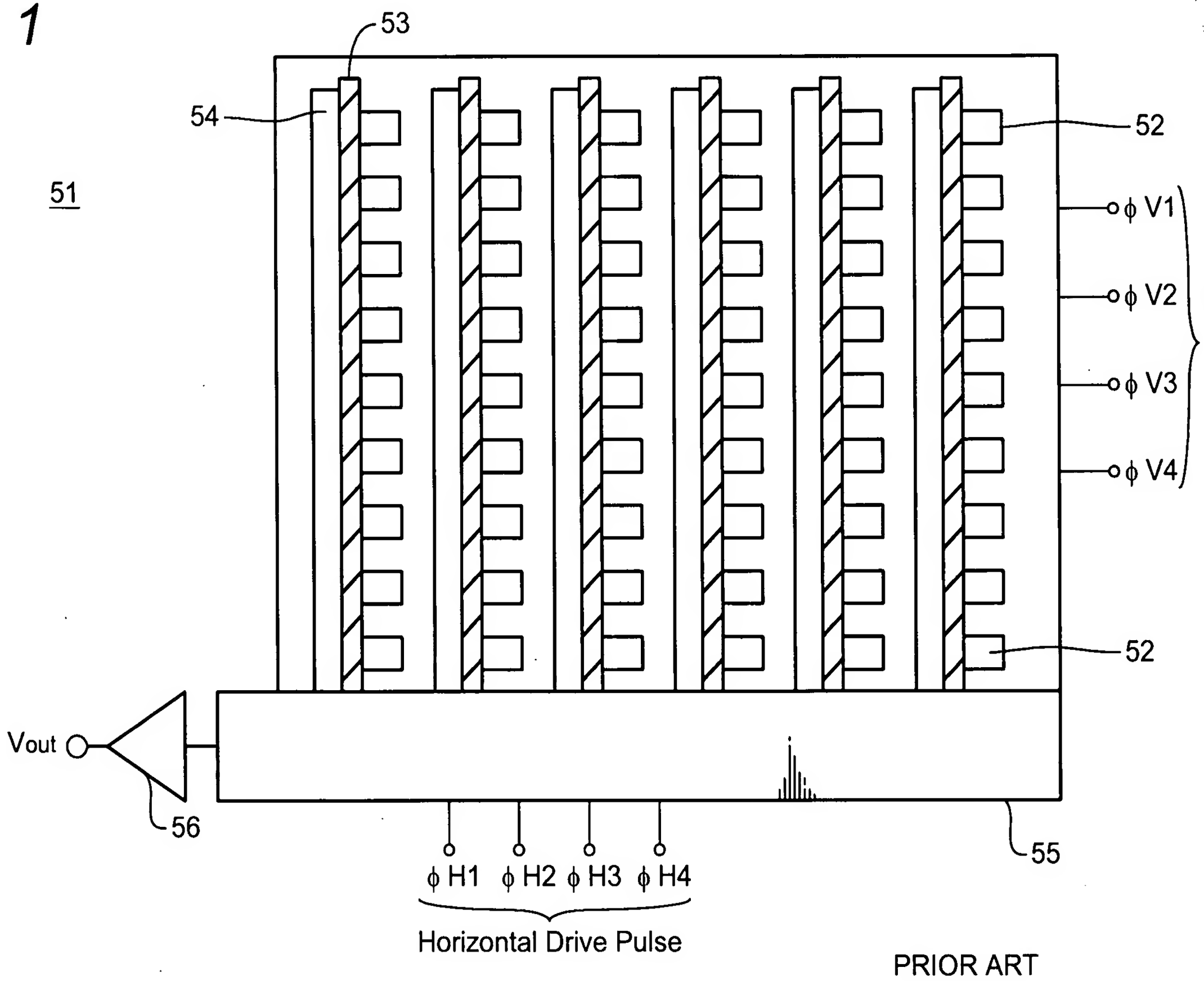
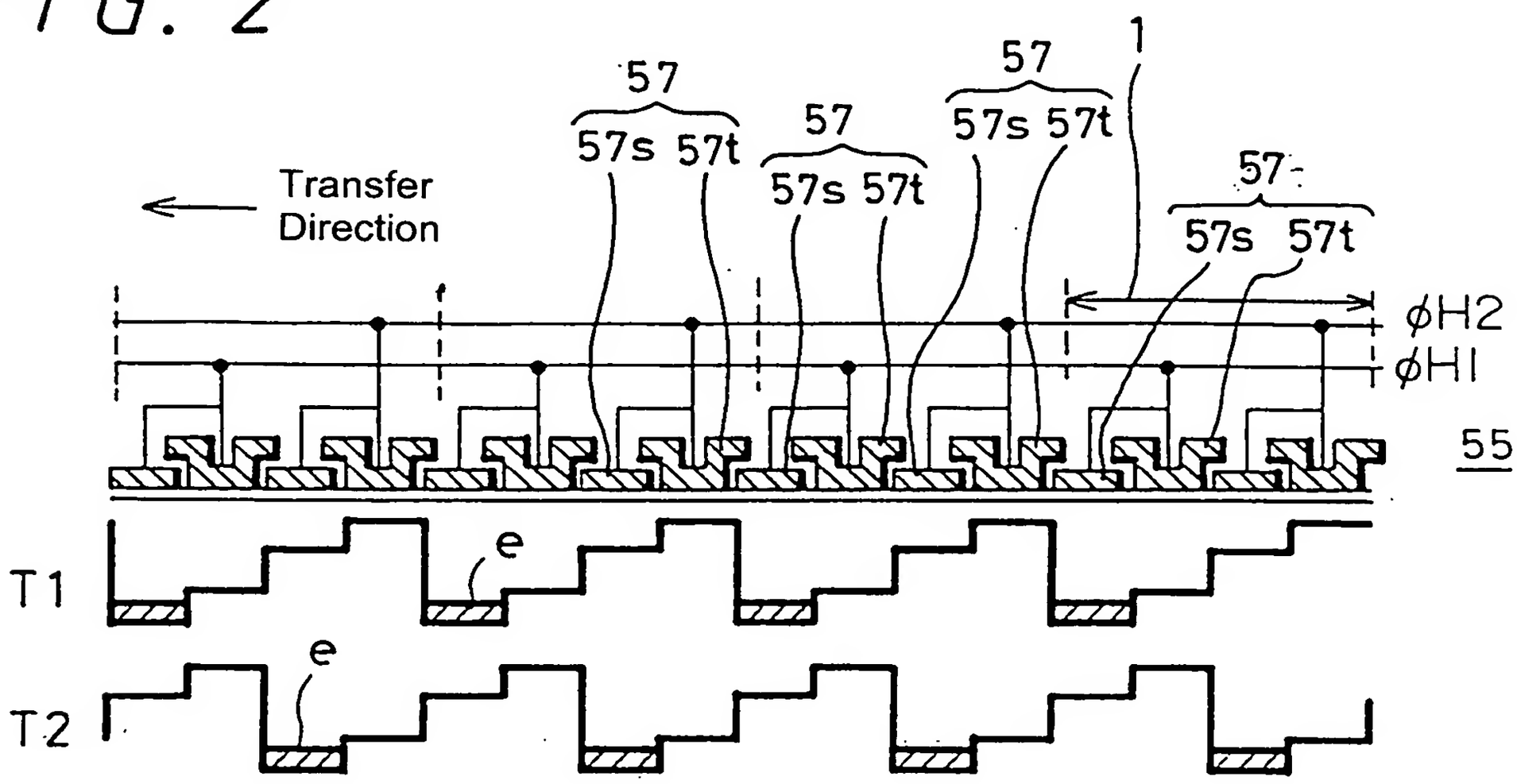
FIG. 1



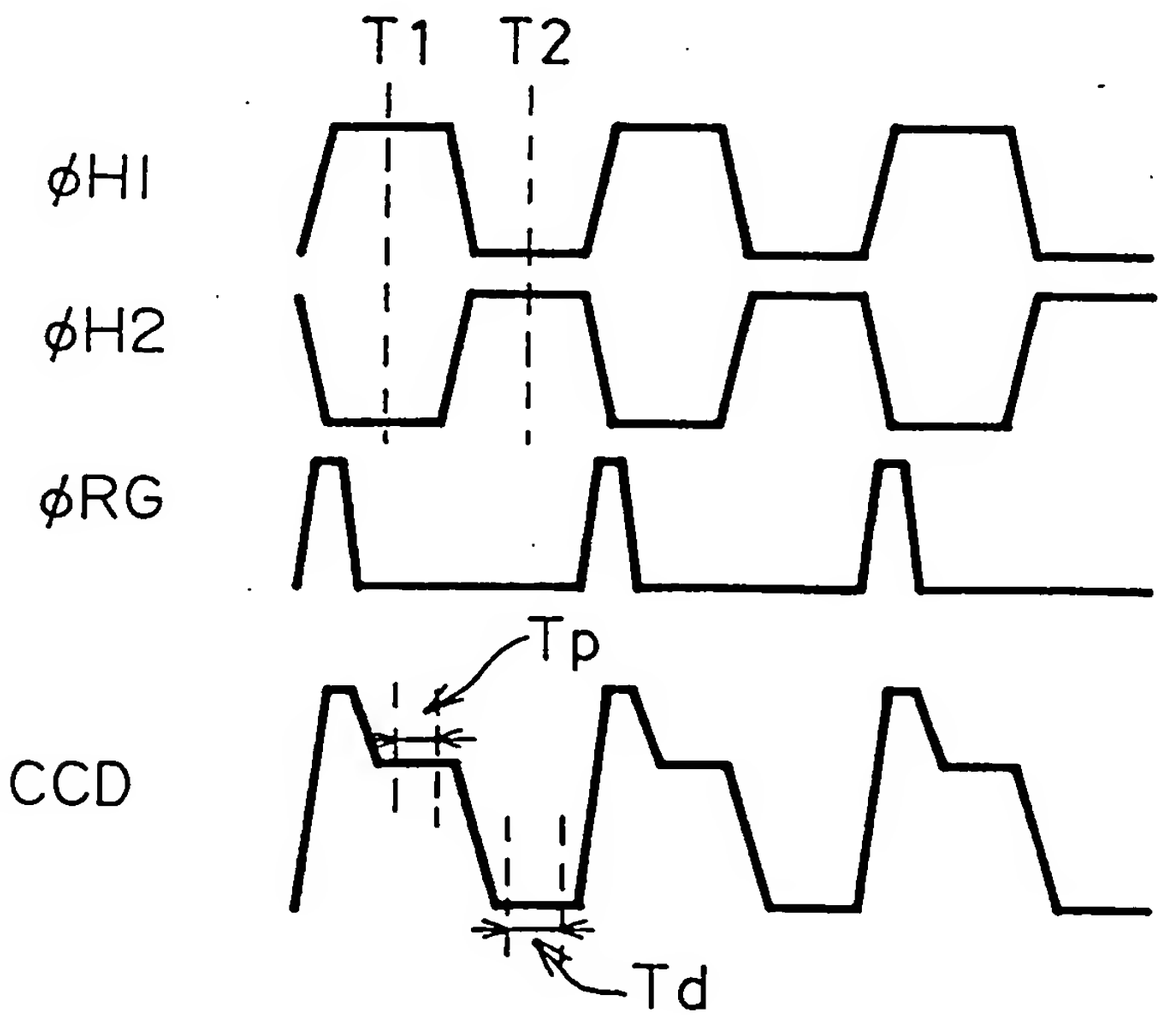
PRIOR ART

FIG. 2



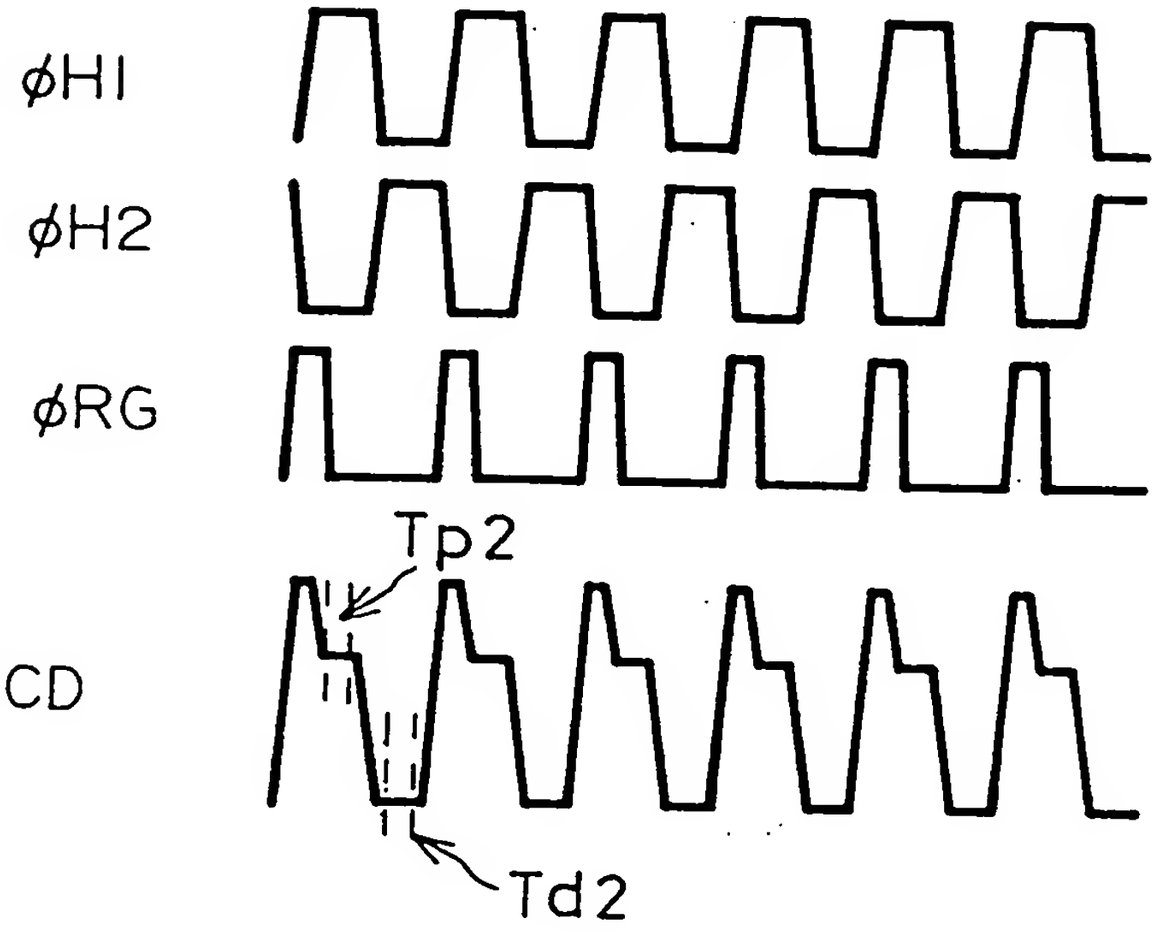
Prior Art

FIG. 3



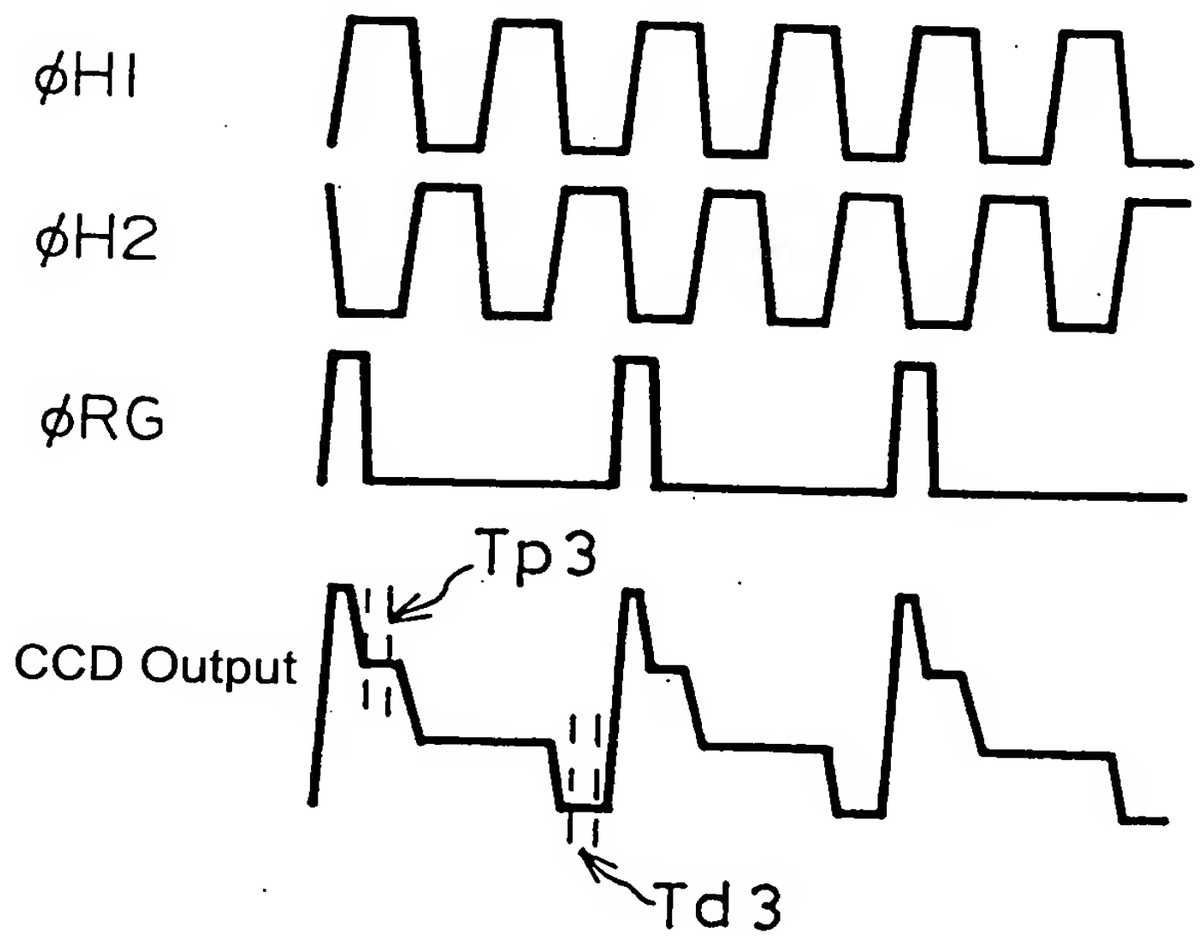
Prior Art

FIG. 4

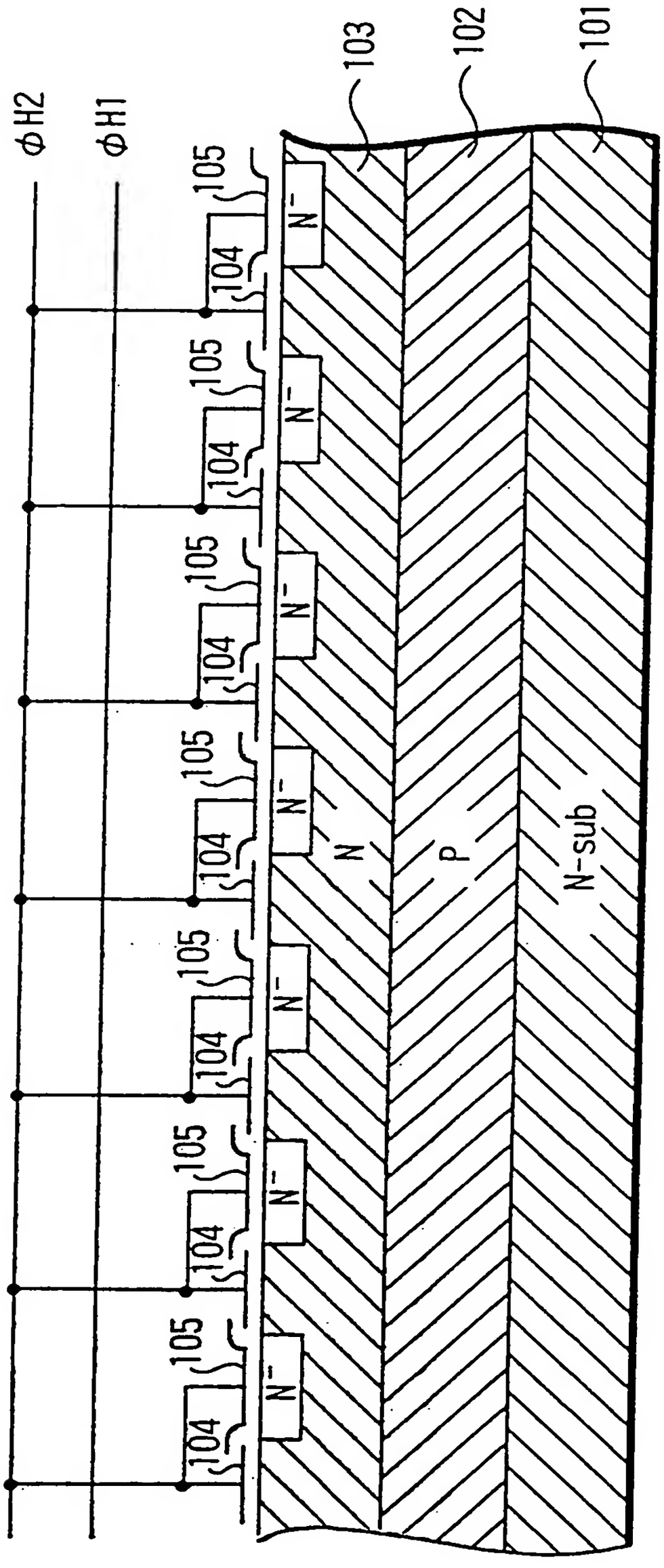


Prior Art

FIG. 5



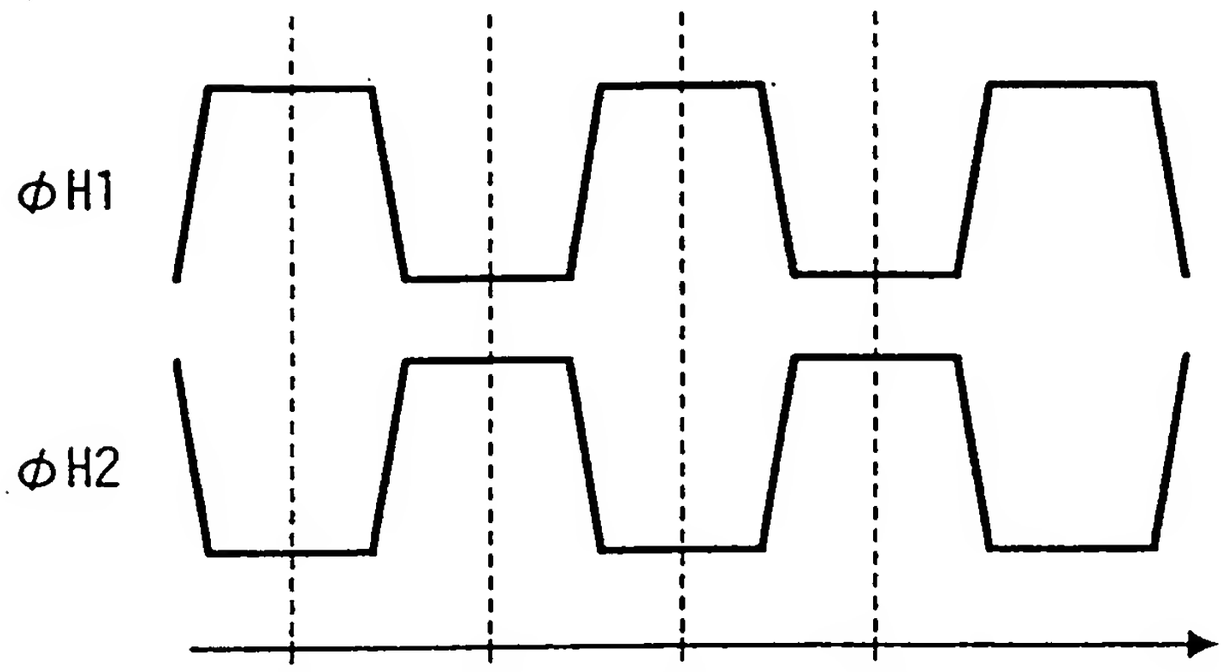
Prior Art



Prior Art

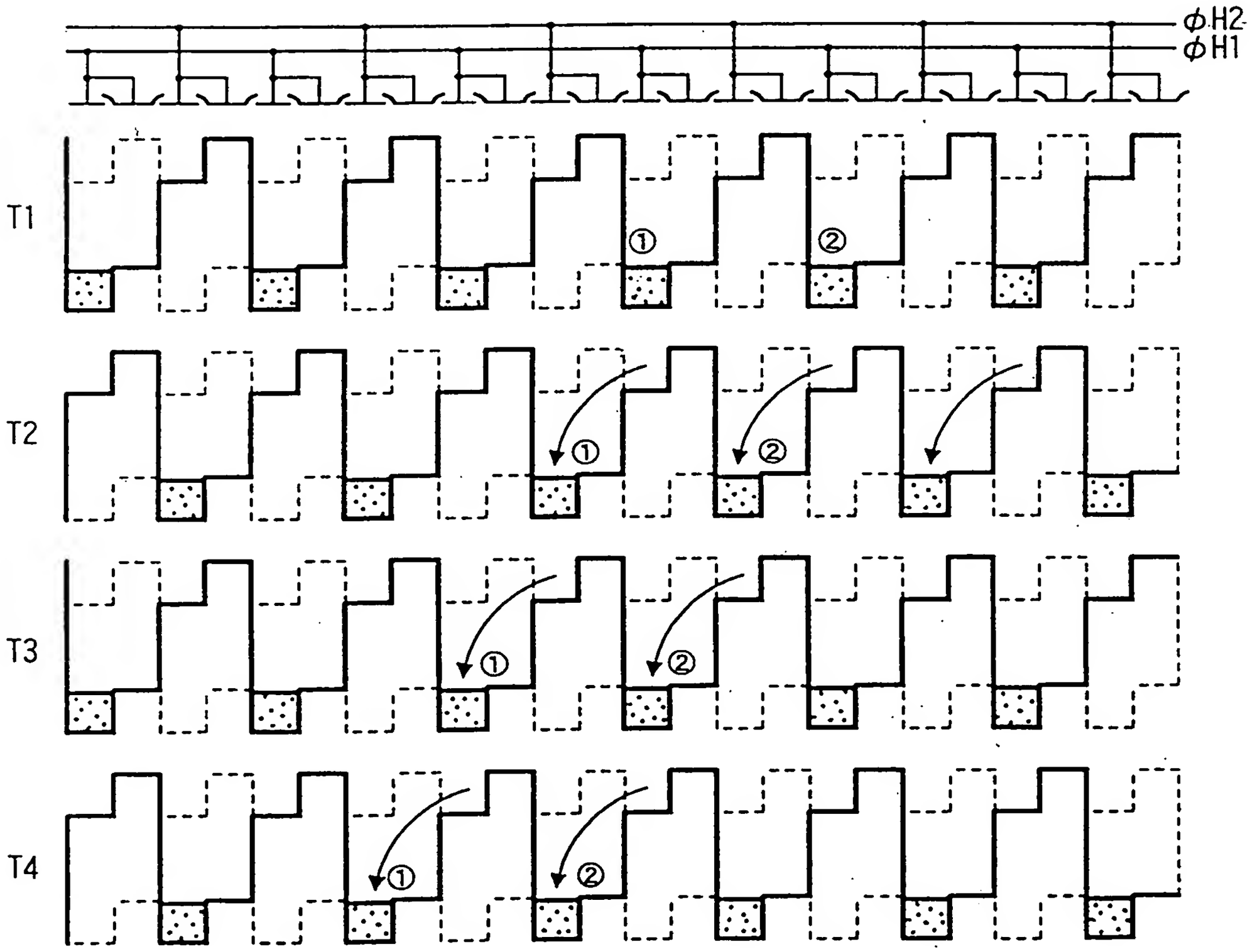
FIG. 6

FIG. 7



Prior Art

FIG. 8



Prior Art

FIG. 9

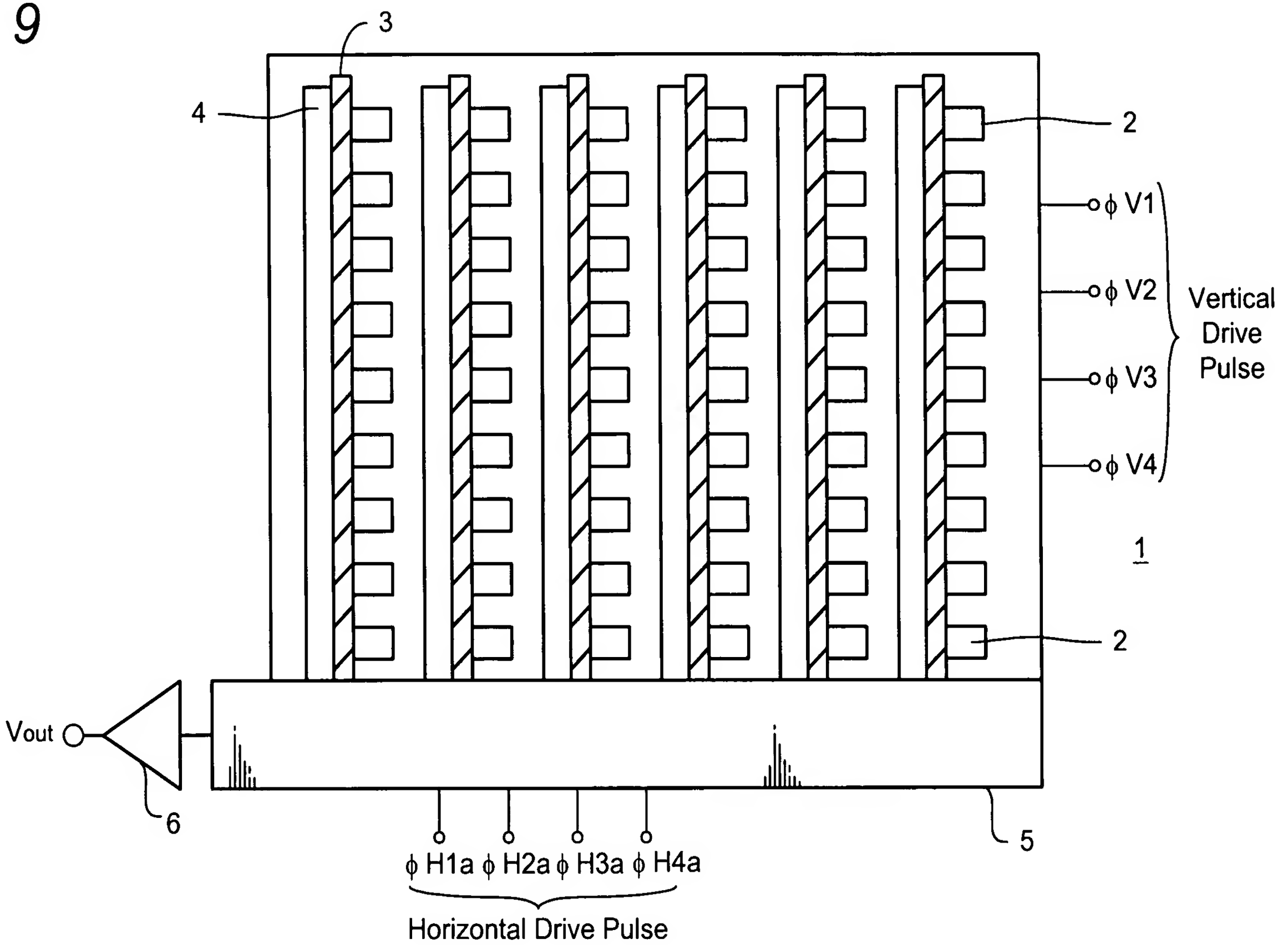


FIG. 10

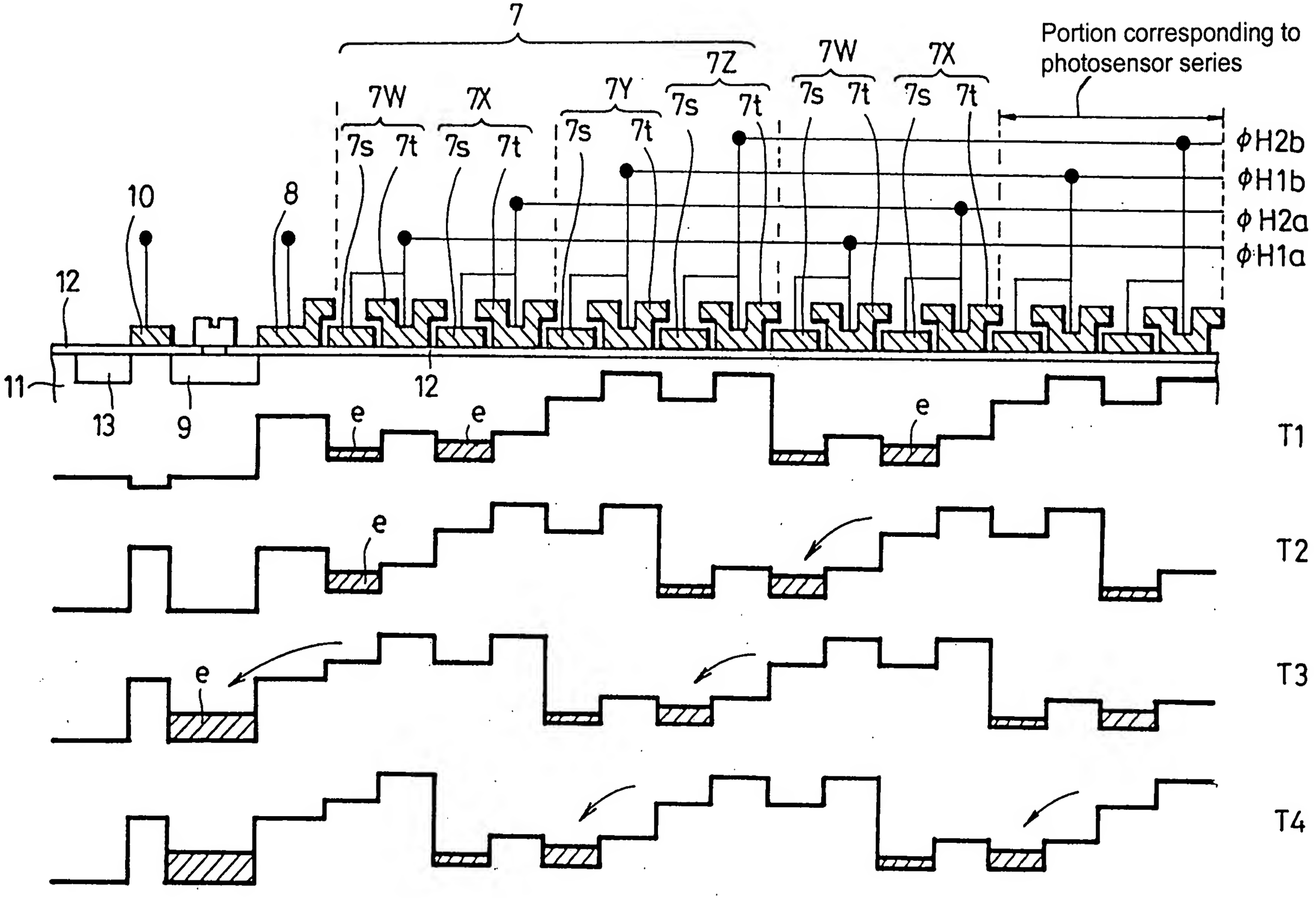


FIG. 11

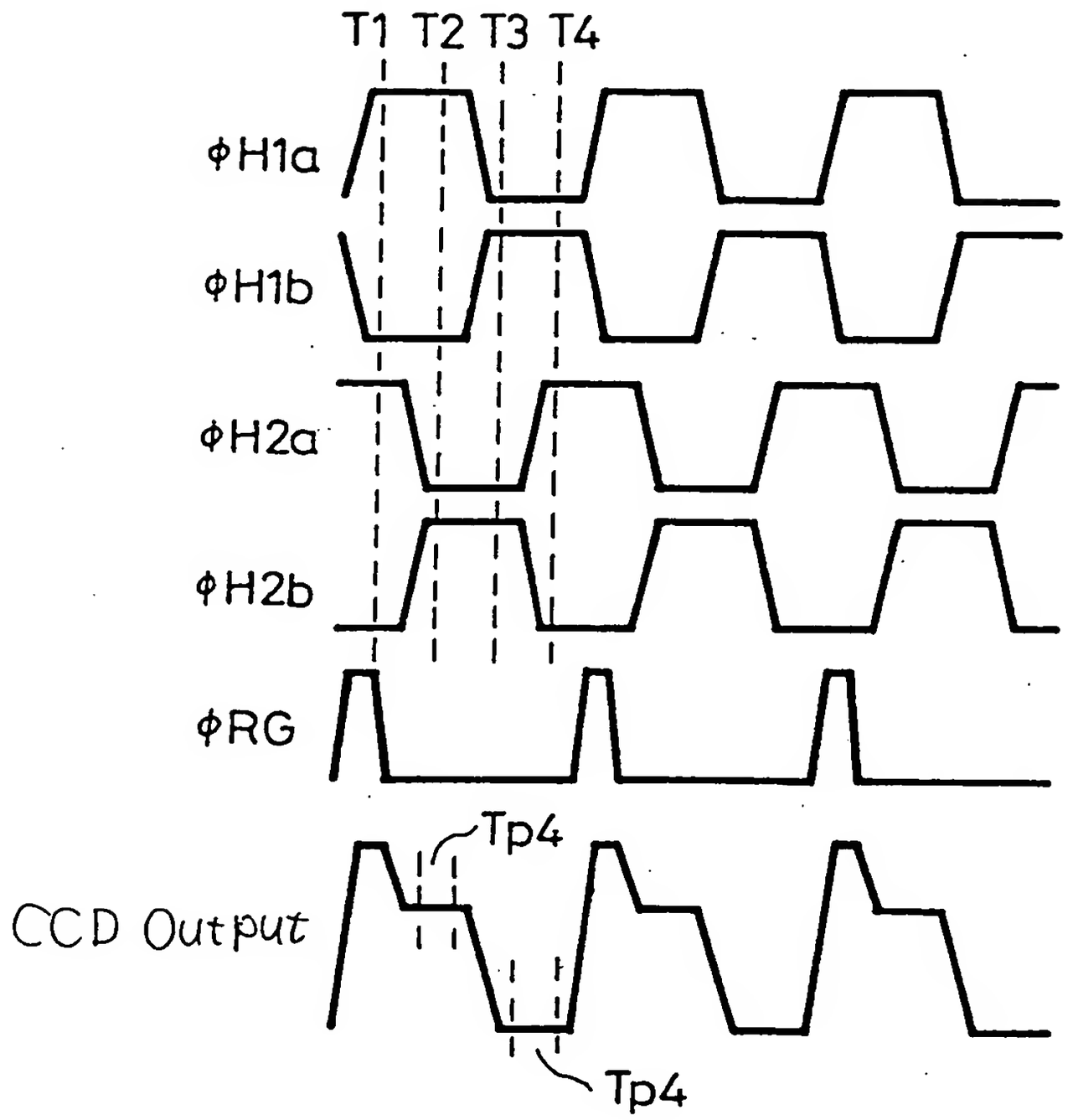


FIG. 12A

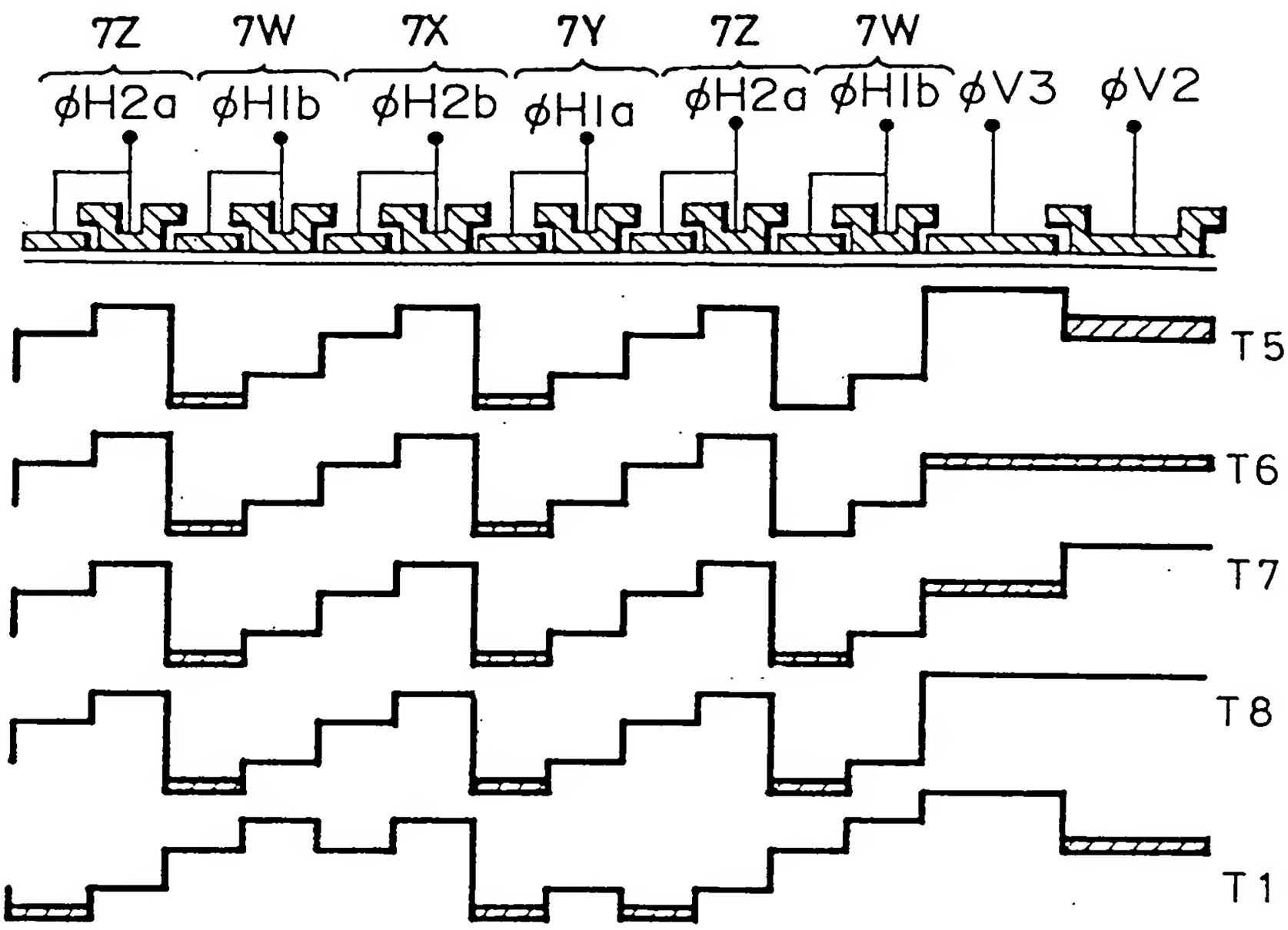


FIG. 12B

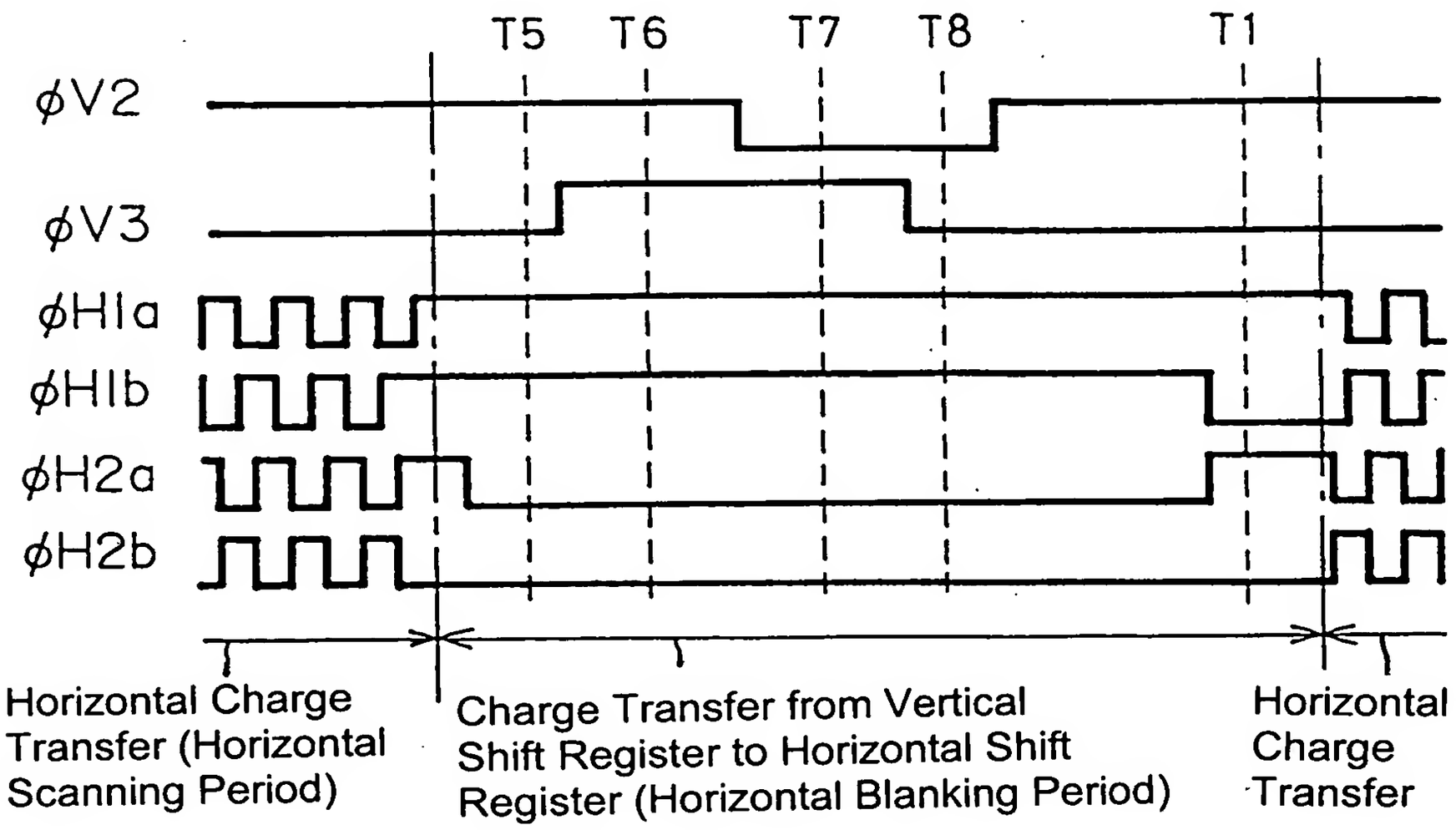
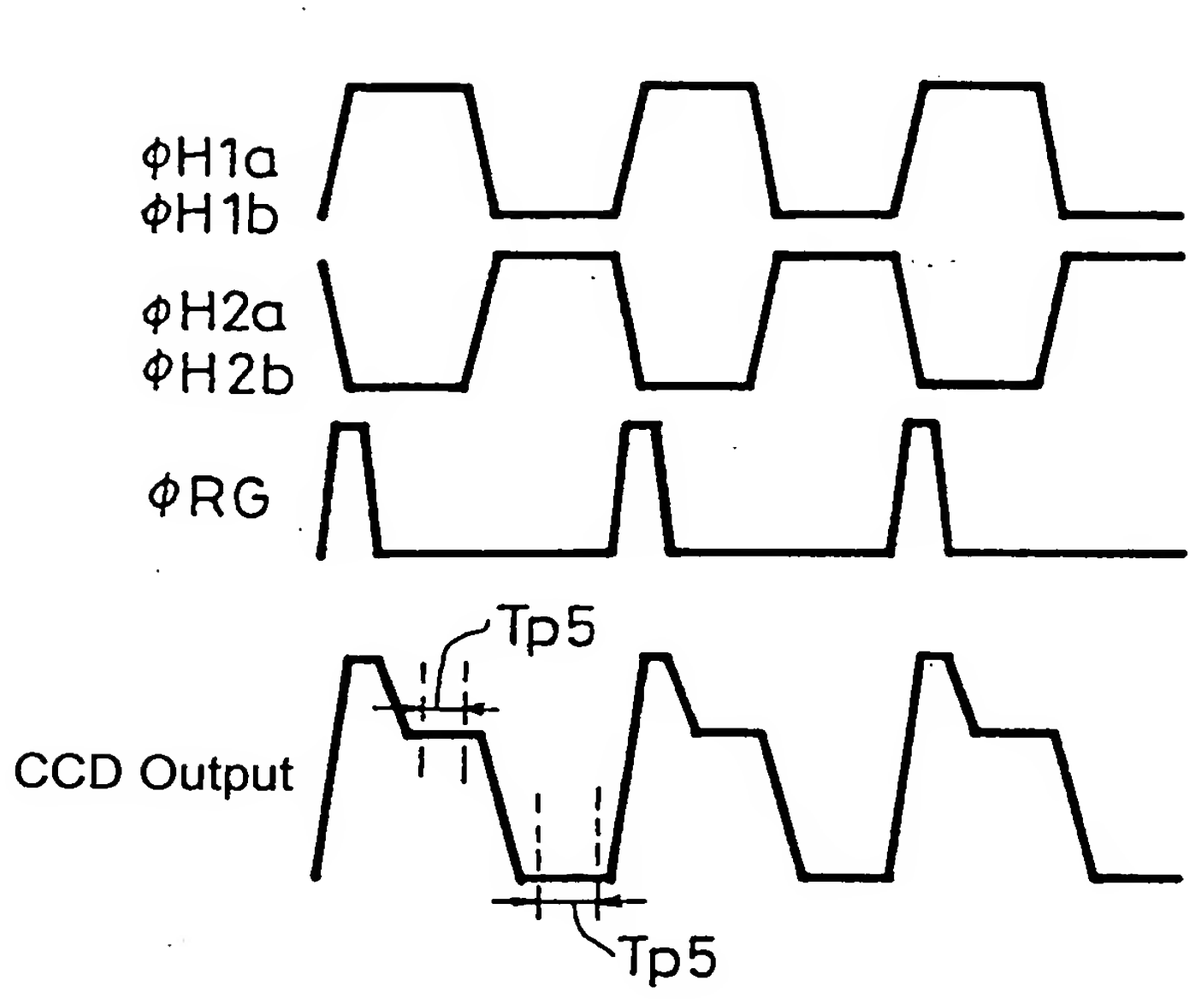


FIG. 13



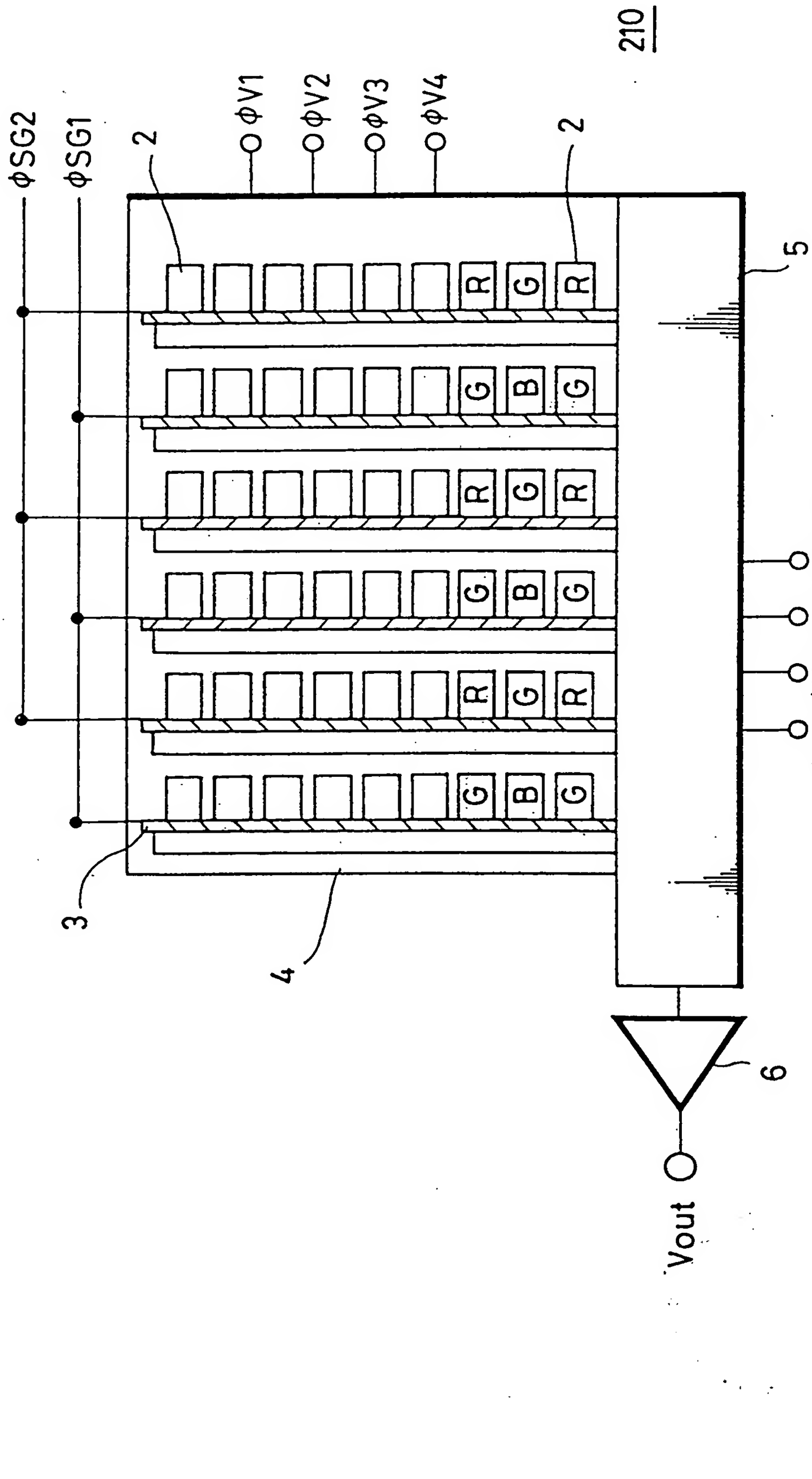
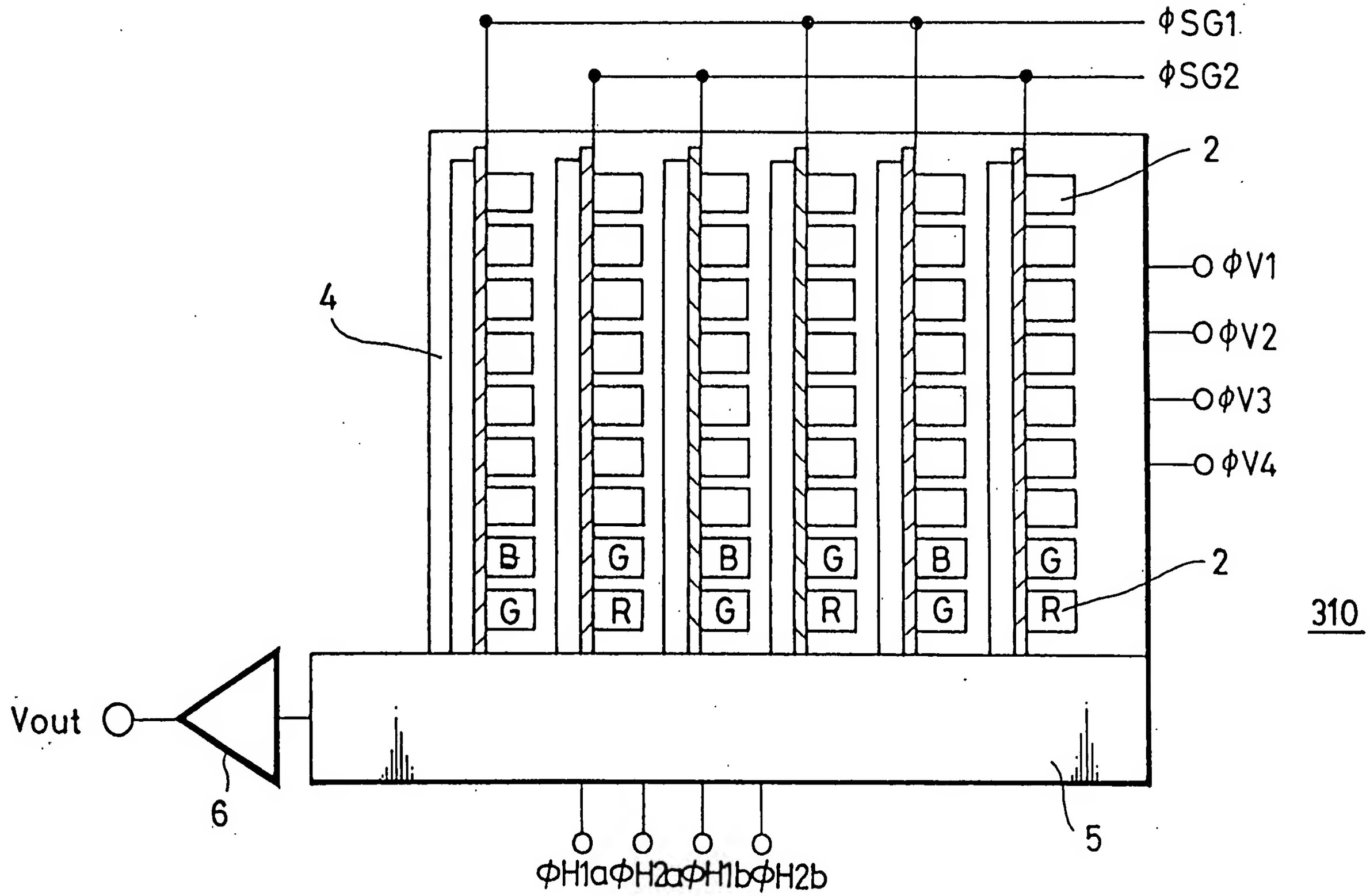

210
φSG2
φSG1
2
φV1
φV2
φV3
φV4
2
5
R
G
R
G
B
G
R
G
R
G
B
G
R
G
R
G
B
G
3
4
φH1aφH2aφH1bφH2b
6
Vout

FIG. 14

FIG. 15



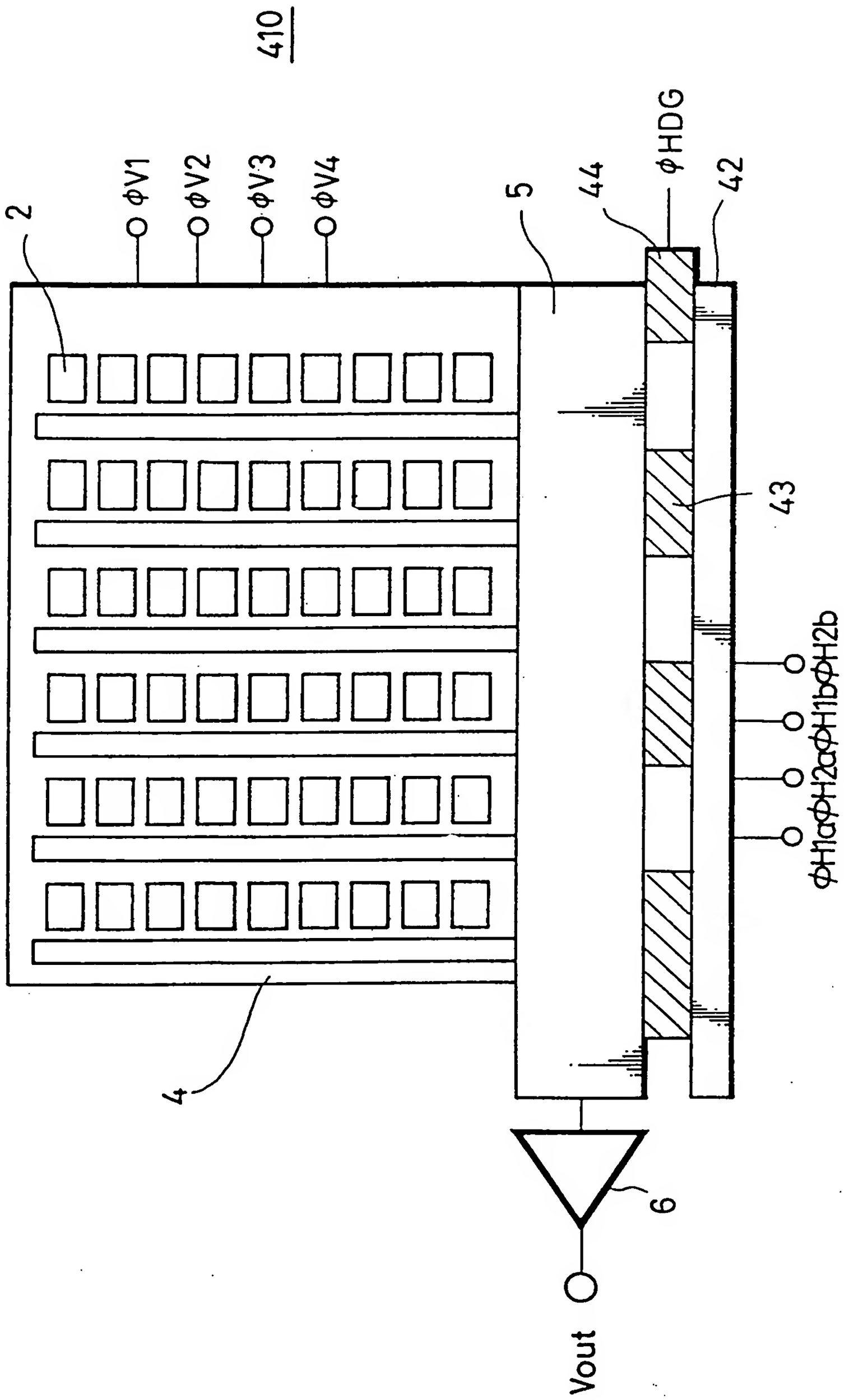


FIG. 16

FIG. 17

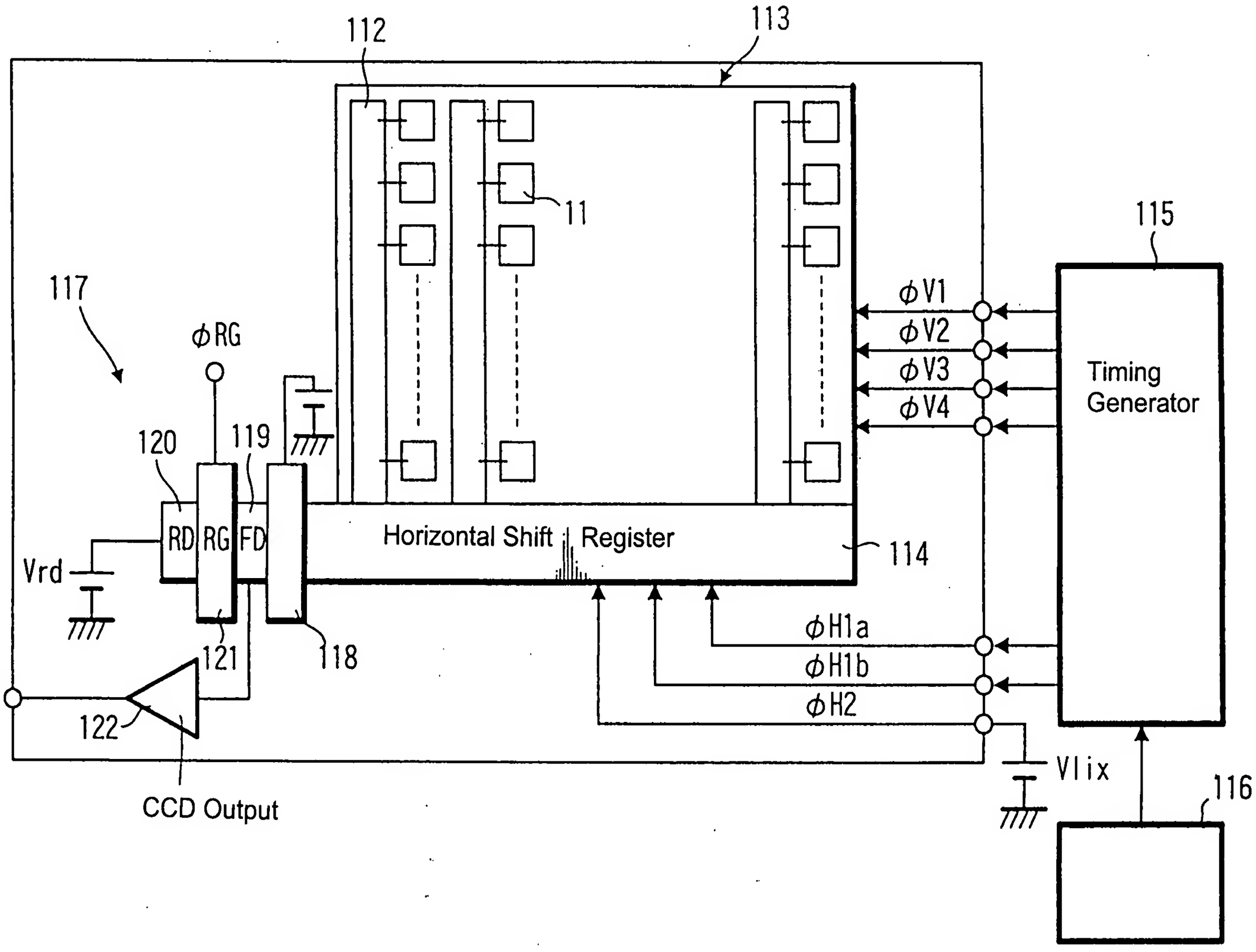


FIG. 18A

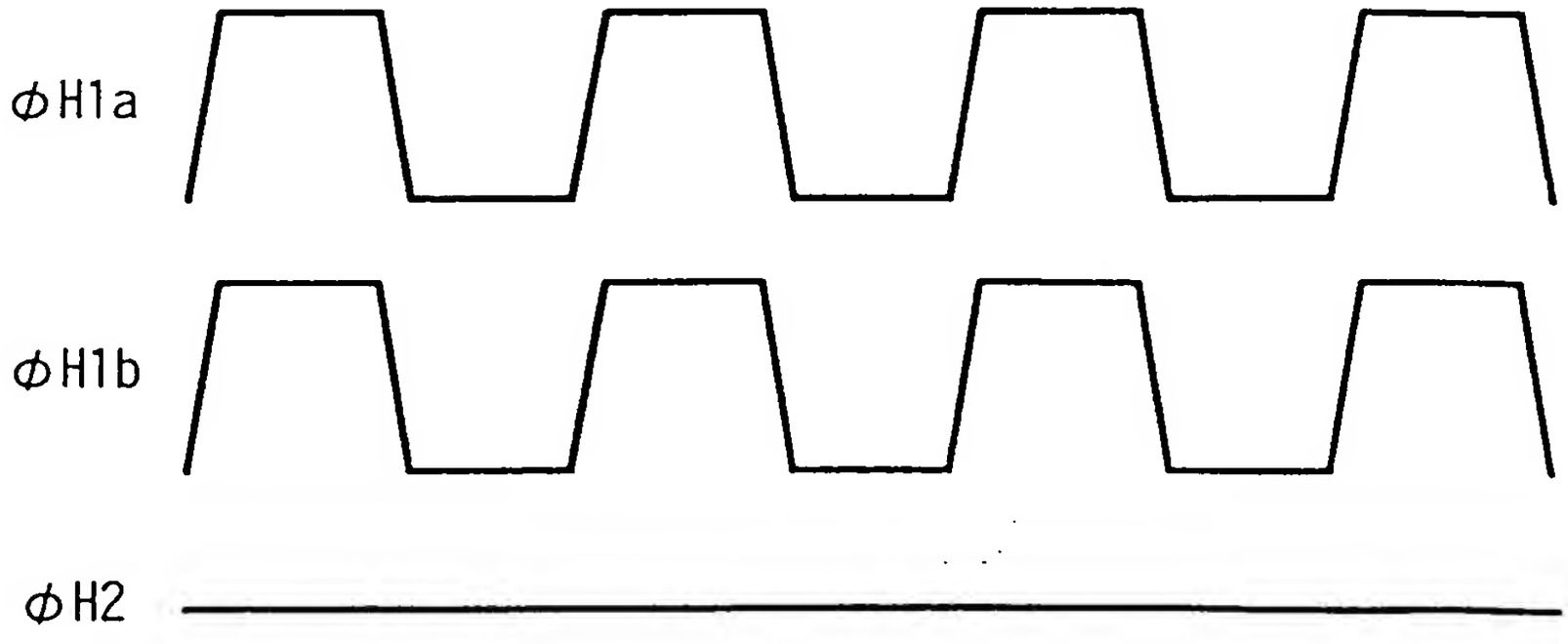
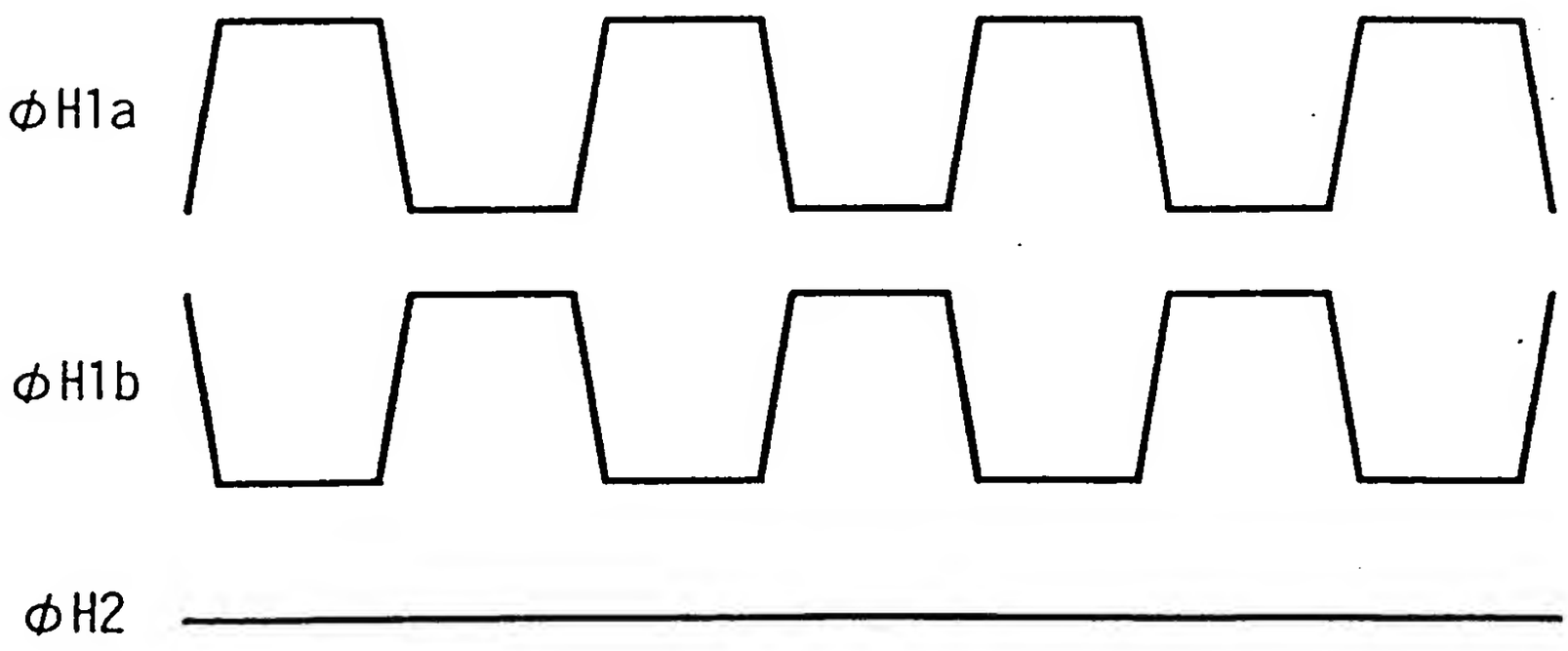


FIG. 18B



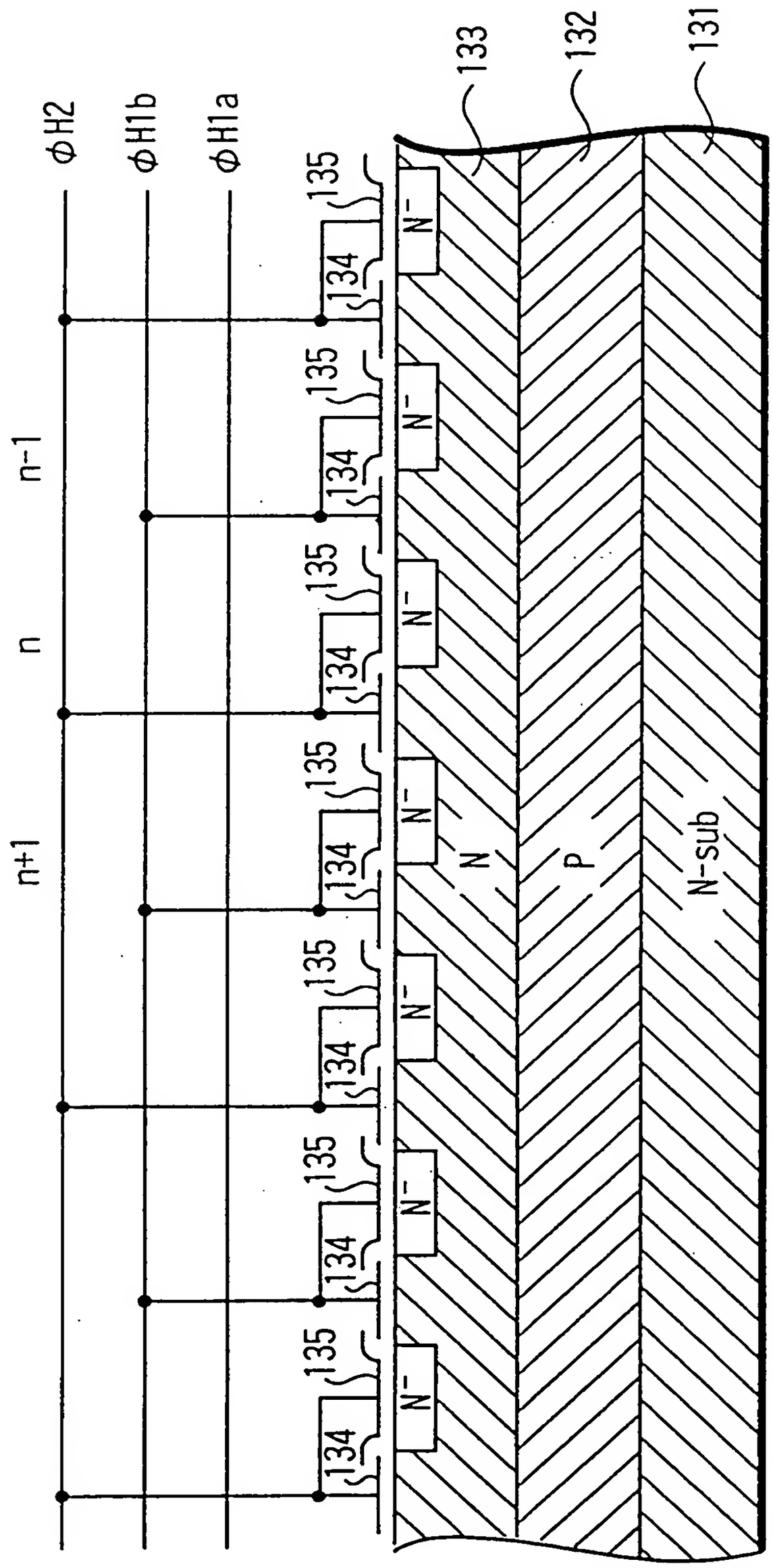


FIG. 19

FIG. 20A

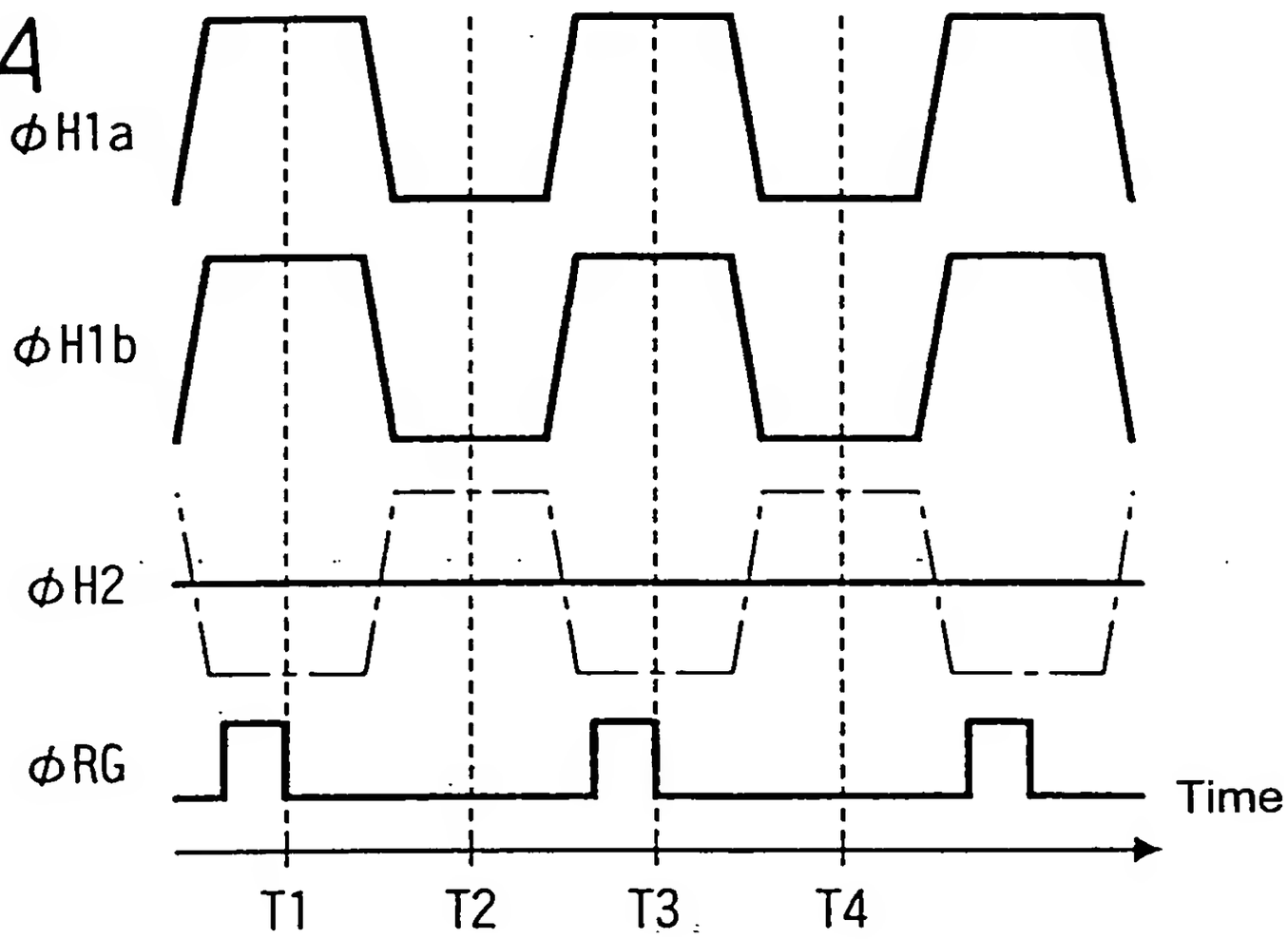


FIG. 20B

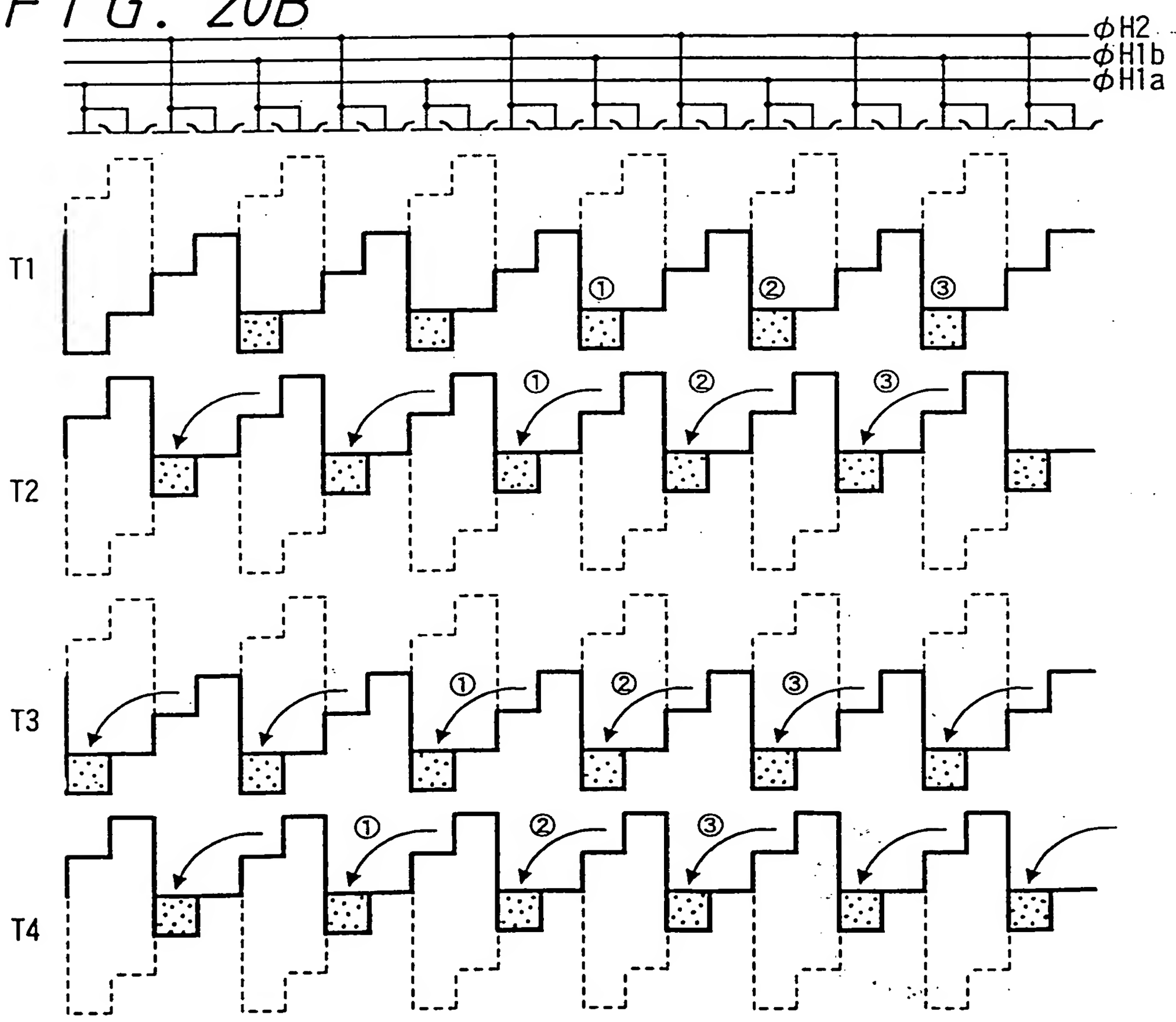


FIG. 21A

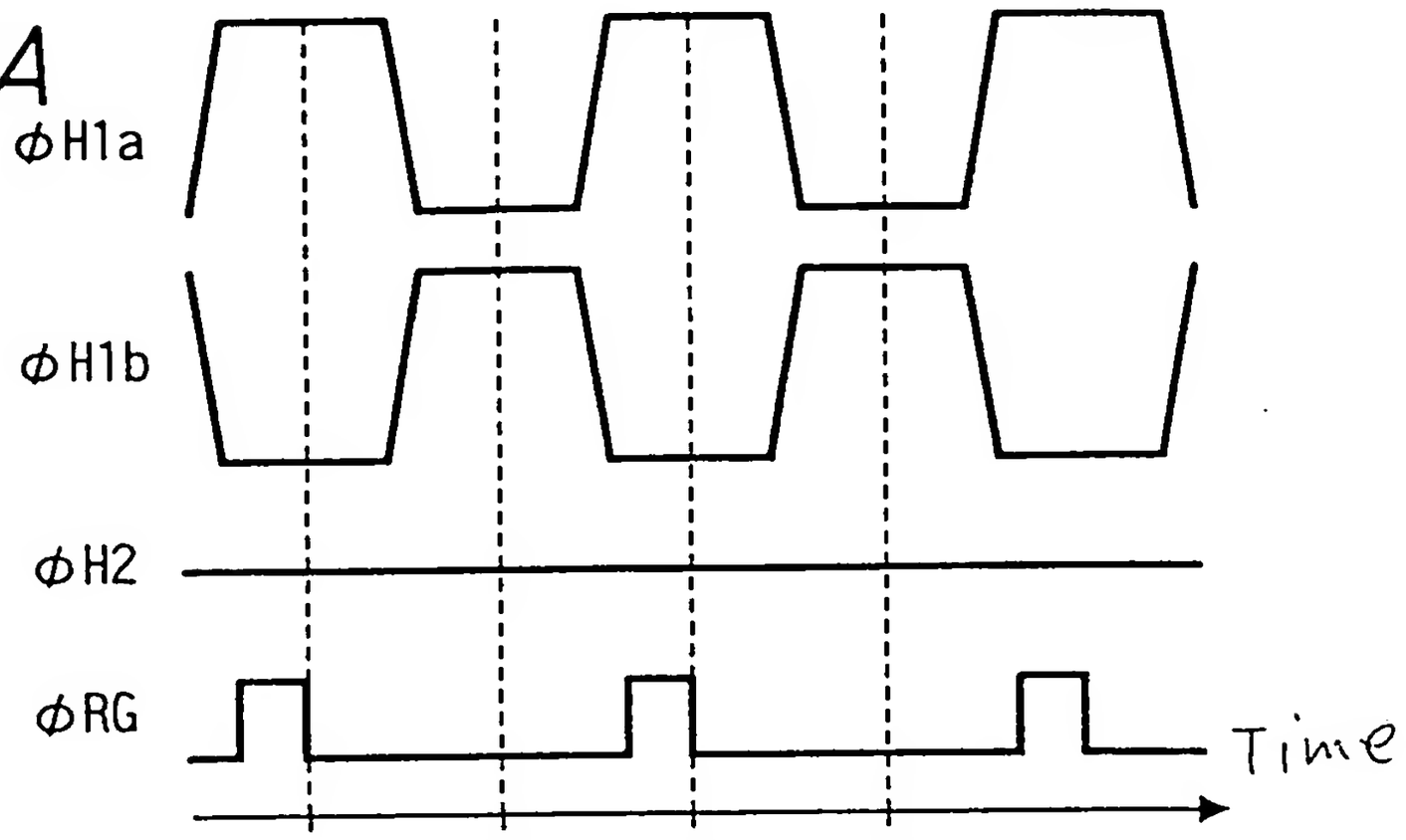
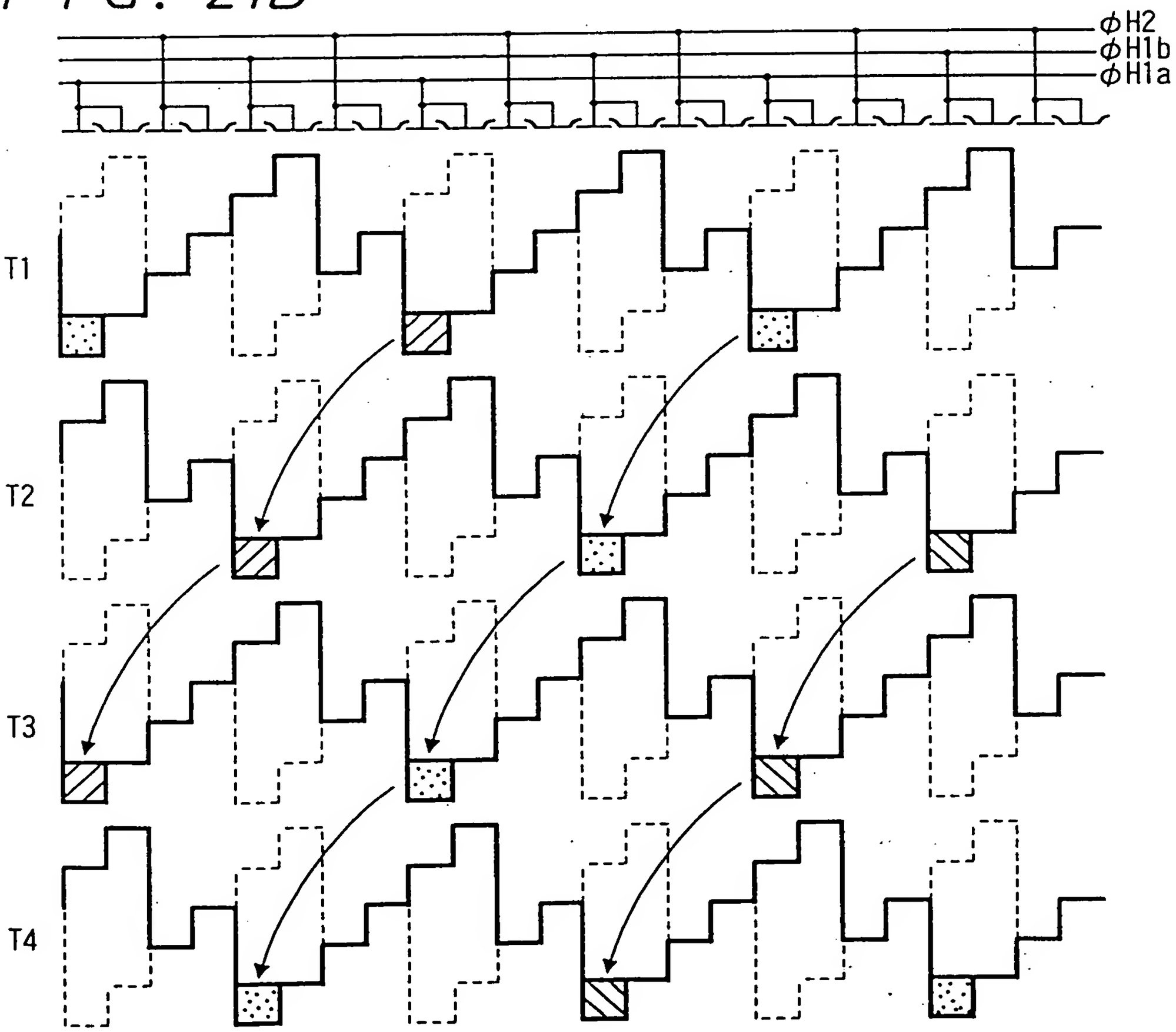


FIG. 21B



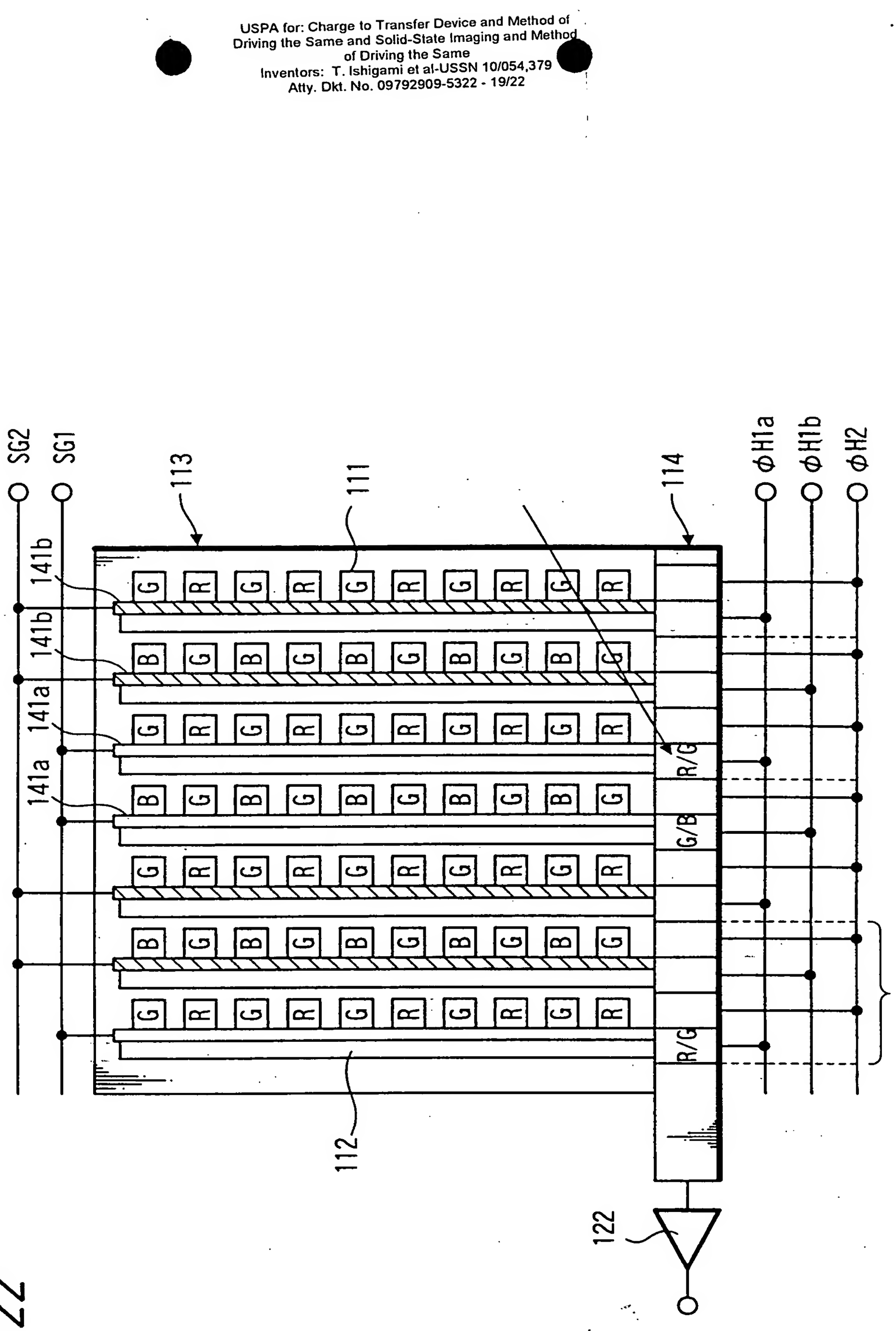
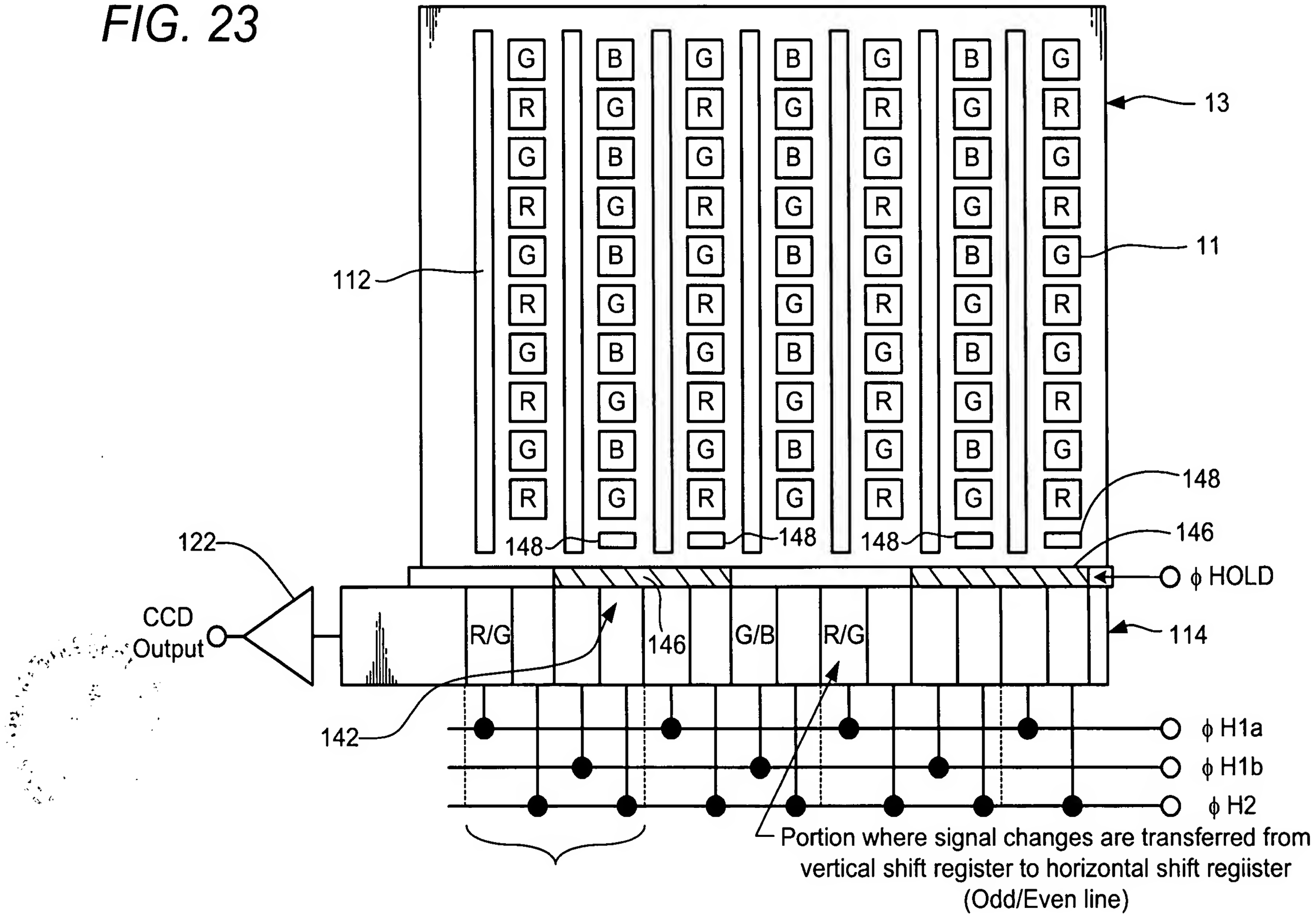

SG2
SG1
13
1
11
14
φH1a
φH1b
φH2
141b
141b
141a
141a
G
R
B
R/G
G/B
R/G
112
122

FIG. 22

FIG. 23



USPA for: Charge to Transfer Device and Method of
Driving the Same and Solid-State Imaging and Method
of Driving the Same
Inventors: T. Ishigami et al-USSN 10/054,
Atty. Dkt. No. 09792909-5322 - 20/22

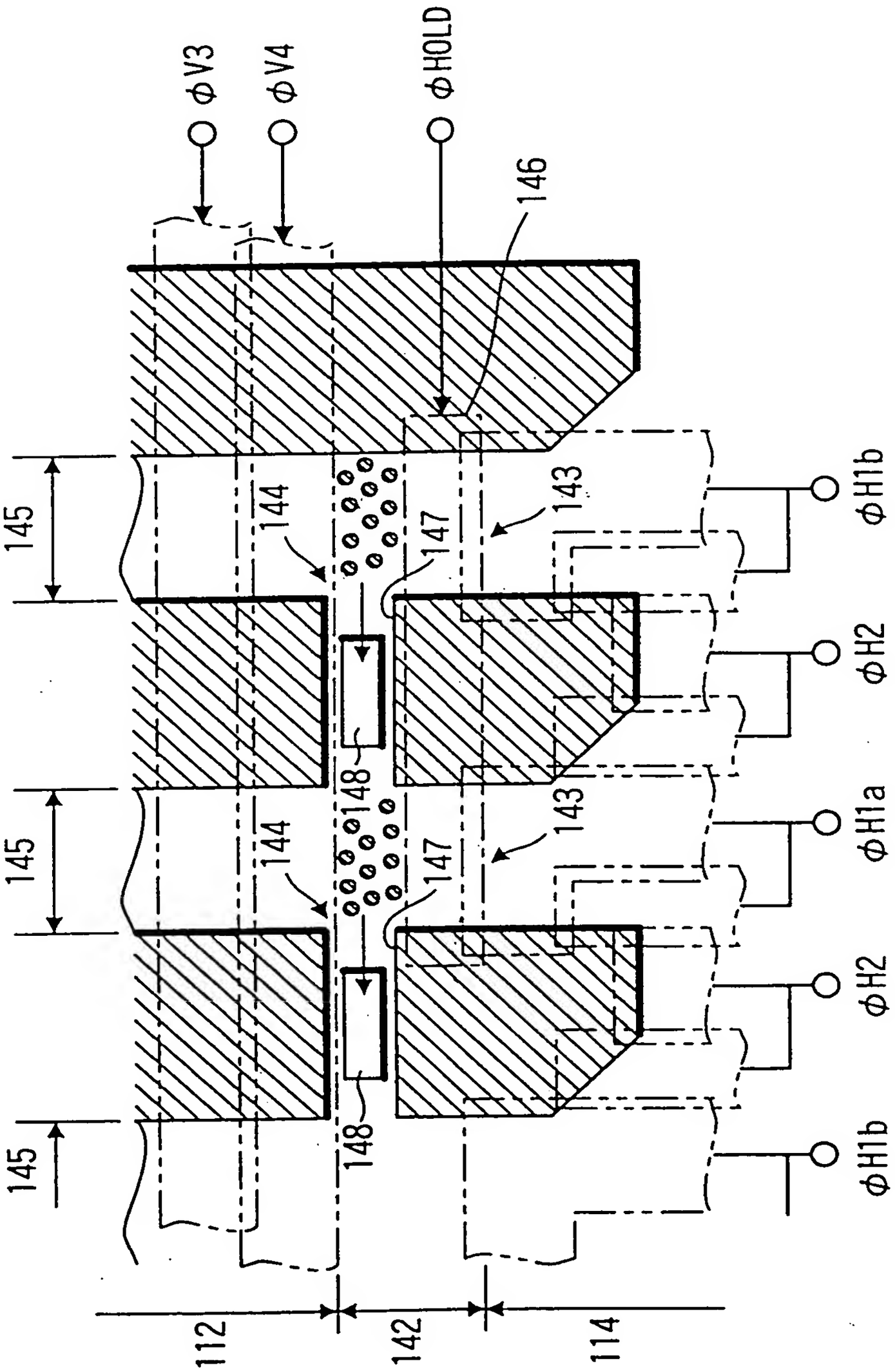

φV3
φV4
φHOLD
146
145
144
147
143
148
φH1b
φH2
φH1a
φH2
φH1b
112
142
114

FIG. 24

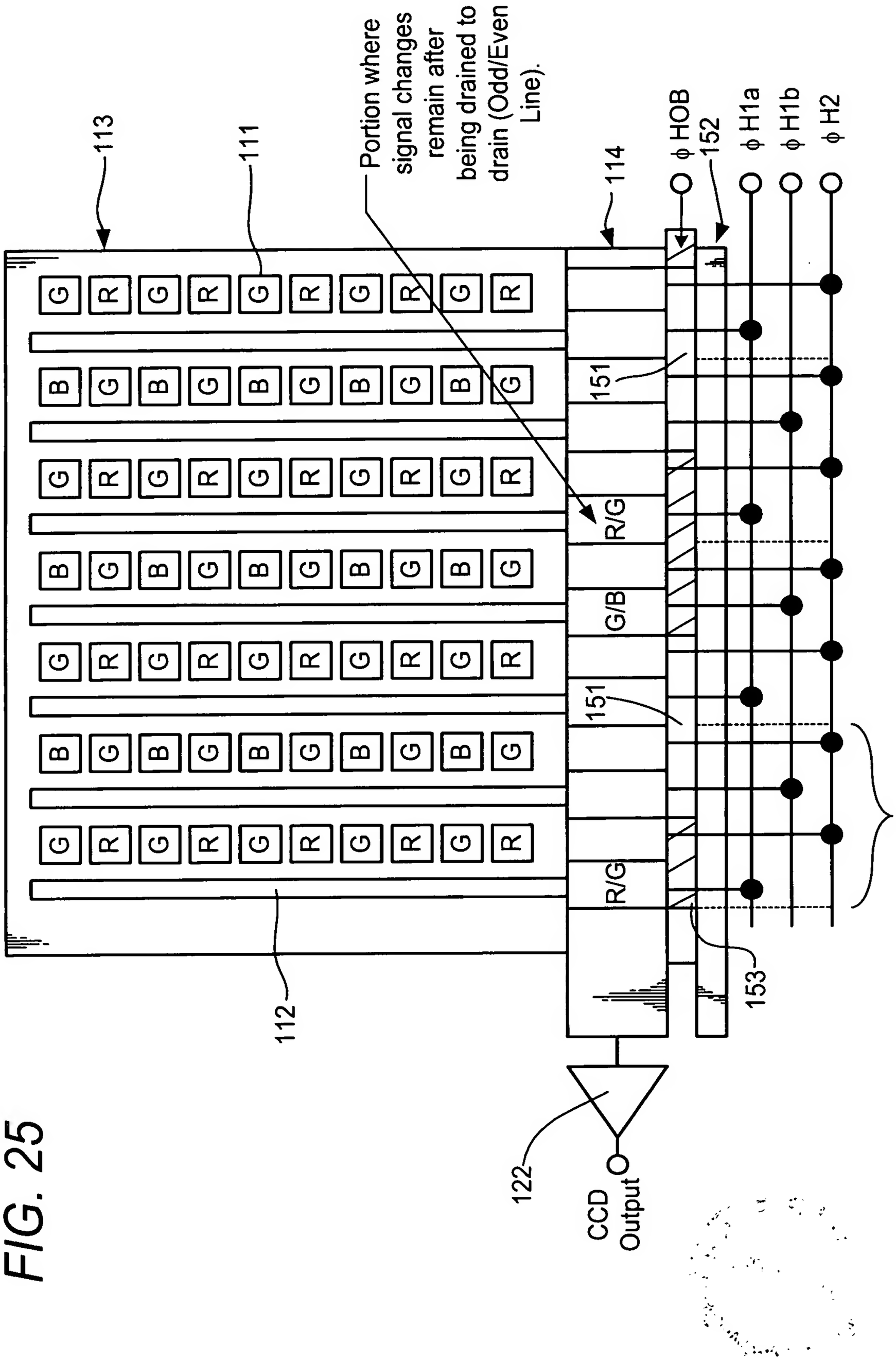

113
111
Portion where signal changes remain after being drained to drain (Odd/Even Line).
114
φ HOB
152
φ H1a
φ H1b
φ H2
151
R/G
G/B
151
R/G
112
153
122
CCD Output

FIG. 25